

REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-33 are pending in this application.

Regarding the Specification

Applicant has amended the specification after noticing a typographical error. Applicant noted that there were two elements with the same numeral 217. Applicant has amended the specification such that the element "ferrule 217" is now element "ferrule 221". Applicant respectfully submits that no new matter has been added.

In the Drawings

Applicant noted that in the drawings two elements had the same number 217. Applicant has amended FIGURES 2A and 2B such that the ferrule element 217 is now element 221. Applicant respectfully submits that no new matter has been added. Substitute FIGURES are being provided along with figures marked in red indicating the changes.

Regarding the § 102 Rejection

Claims 1, 2, 5, 7, 9, 10, 13-15, 18, 19, 22, 25-27, 29 and 31-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by O'Connor et al. (U.S. Patent No. 6,450,704).

MPEP § 2131 provides:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Company of California*, 814 F2nd 628, 631, 2 USPQ2nd 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as contained in the ...claim.” *Richardson v Suzuki Motor Company*, 868 F2nd 1226, 1236, 9 USPQ2nd 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

Applicant agrees with the Examiner that O'Connor et al teaches a type of an electro-optic connector. Applicant respectfully submits that contrary to the Examiner's statement that all elements are disclosed in the O'Connor et al reference, an element in pending claim 1 requiring that there be a base portion and a lid portion wherein the lid portion and the base portion are *adapted to receive at least a portion of the optical communications device therebetween* is not disclosed. Thus, Applicant respectfully submits that the §102 rejection is unsupported by the art and should be withdrawn.

Applicant also points out that the method of claim 13, for fixing a substrate to a base material *with at least a portion of the optical-electrical components therebetween*, is also not taught, alluded to or anticipated by the O'Connor et al reference. Furthermore, O'Connor does not teach or anticipate a structure that is devisable into two or more optical communication devices wherein there is a first substrate and a second substrate affixed to the first substrate with *at least two optical electrical devices positioned therebetween* as is claimed in claim 25. As such, the Applicant respectfully submits that the §102 rejection is unsupported by the cited art and should be withdrawn.

Regarding the § 103 Rejection

Claims 3, 4, 6, 8, 11, 12, 16, 17, 20, 21, 23, 24, 28 and 30 were rejected under 35 U.S.C. § 103(a) as being rendered obvious by O'Connor et al (U.S. Patent No. 6,450,704).


Applicant respectfully points out that the Federal Circuit requires that some motivation or suggestion must be found in the prior art or other evidence of record that would have led one of ordinary skill in the art to produce the claimed invention in order to properly establish a *prima facie* case of obviousness. Applicant respectfully submits that a *prima facie* case of obviousness has not been made. The CCPA explains how it would evaluate a *prima facie* case of obviousness in *In Re Clinton*, 527 F2nd 1226, 188 USPQ 365 (CCPA 1976). The court required that first one must look at the references to determine whether “the references by themselves...suggest doing what the inventor has done.” The court next considered whether a person of ordinary skill in the art would, based on the cited art, have had sufficient basis for the required expectation of success. Applicant respectfully points out that O'Connor et al does not teach, allude to or render obvious anything similar to providing a base portion and a lid portion wherein the lid portion and the base portion are adapted to receive at least a portion of the optical communications device therebetween. O'Connor et al further does not discuss affixing a substrate to a base material with at least a portion of the optical-electrical components therebetween. Also, O'Connor does not teach a structure that is devisable into one or more optical communication devices having a first substrate and a second substrate affixed to the first substrate with at least two optical electrical devices positioned therebetween. Applicant respectfully points out that O'Connor does not teach, allude to or render obvious anything similar to a first and second portion, substrate, or

otherwise wherein the electronics are sandwiched in between. O'Connor makes no discussion whereas any concern with sandwiching of the electronics. FIGURE 3 of O'Connor clearly indicates that the electronics are not sandwiched between anything. Furthermore, FIGURE 1 of O'Connor only shows a transparent substrate 11 with no sandwiching. O'Connor is focused on the hinging of the optical assembly rather than a mass production or ease of establishing alignment of photo electronic connectors. As such, Applicant respectfully points out that a *prima facie* case of obviousness has not been established for the requisite claims. Applicant respectfully requests that this § 103 rejection be withdrawn for claims 3, 4, 6, 8, 11, 12, 16, 17, 20, 21, 23, 24, 28 and 30.

Should the Examiner have any further questions or comments facilitating allowance, the Examiner is invited to contact Applicant's representative indicated below to further prosecution of this application to allowance and issuance.

In view of the above, it is believed that this application is in condition for allowance,
and such a Notice is respectfully requested.

Respectfully submitted,
JENKENS & GILCHRIST,
A Professional Corporation


Steven R. Greenfield
Registration No. 38,166

Date: JAN 29, 2003

1445 Ross Avenue, Suite 3200
Dallas, Texas 75202-2799
(Direct) 214/855-4789
(Fax) 214/855-4300

EXHIBIT "A" - PENDING CLAIMS

In the Claims

1 1. An enclosure for an optical communications device that joins with a connector
2 of an optical cable, the enclosure comprising:
3 a base portion;
4 a lid portion having focusing elements and affixed to the base portion, wherein
5 the lid portion and the base portion are adapted to receive at least a portion of the optical
6 communications device therebetween; and
7 at least one alignment member formed on the lid portion, the alignment
8 member adapted to interface with the connector to align the connector relative to lid portion.

1 2. The enclosure of claim 1 wherein the lid portion is recessed to receive at least
2 a portion of the optical communications device therebetween.

1 3. The enclosure of claim 1 wherein the at least one alignment member is metal
2 deposited into the shape of the at least one alignment member.

1 4. The enclosure of claim 3 further comprising a preliminary layer on the lid
2 portion to promote adhesion of the deposited metal.

1 5. The enclosure of claim 1 wherein the at least one alignment member is a
2 prefabricated alignment member bonded to the lid portion.

1 6. The enclosure of claim 5 further comprising a preliminary metal layer on the
2 lid portion, and wherein the prefabricated alignment member comprises metal welded to the
3 preliminary metal layer.

1 7. The enclosure of claim 1 wherein the at least one alignment member is shaped
2 from the lid portion.

1 8. The enclosure of claim 1 wherein the at least one alignment member is a
2 microsphere.

1 9. The enclosure of claim 1 wherein the lid portion further comprises at least one
2 recess which receives the at least one alignment member.

1 10. The enclosure of claim 1 wherein at least a portion of the lid portion is
2 transparent and the focusing element is formed into the lid portion.

1 11. The enclosure of claim 1 wherein the at least one alignment member has a
2 flared base portion.

1 12. The enclosure of claim 1 wherein the at least one alignment member is formed
2 on an overlay, and the overlay is affixed to the lid portion.

1 13. A method of fabricating an optical interconnect device, the optical
2 interconnect device including optical-electrical components for interfacing an optical and an
3 electrical signal, comprising:

4 forming at least two alignment members on a substrate;

5 affixing the substrate to a base material with at least a portion of the optical-
6 electrical components therebetween; and

7 segmenting the affixed substrate and base material into at least two portions of
8 affixed substrate and base material, each portion having at least one alignment member.

1 14. The method of claim 13 wherein forming at least two alignment members
2 comprises depositing material in the shape of at least two alignment members.

1 15. The method of claim 14 further comprising using a mold to shape the
2 deposited material.

1 16. The method of claim 14 wherein the material is a metal deposited in a
2 chemical vapor deposition process.

1 17. The method of claim 14 wherein the material is a curable material that bonds
2 with the substrate as it hardens.

1 18. The method of claim 14 further comprising the step of depositing a
2 preliminary layer on the substrate to promote adhesion of the at least two alignment
3 members.

1 19. The method of claim 13 wherein forming at least two alignment members
2 comprises molding the at least two alignment members together with the substrate.

1 20. The method of claim 13 wherein forming the at least two alignment members
2 comprises machining the substrate to form the at least two alignment members.

1 21. The method of claim 13 where forming the at least two alignment members
2 comprises etching the substrate using photolithography techniques to form the at least two
3 alignment members.

1 22. The method of claim 14 wherein forming the at least two alignment members
2 on the substrate comprises affixing at least two prefabricated alignment members to the
3 substrate.

1 23. The method of claim 14 wherein forming the at least two alignment members
2 on the substrate comprises affixing an overlay having at least two alignment members
3 thereon to the substrate.

1 24. The method of claim 14 further comprising etching the substrate using
2 photolithography techniques to form at least one recess; and

3 wherein the step of depositing material in the shape of at least two alignment
4 members further comprises depositing material into the at least one recess in the shape of at
5 least one of the at least two alignment members.

1 25. A structure divisible into two or more optical communication devices, each
2 optical communications device having at least one optical electrical device, and each optical
3 communications device adapted to join with a connector of an optical cable, the structure
4 comprising:

5 a first substrate having at least two optical electrical devices thereon;

6 a second substrate affixed to the first substrate with the at least two optical
7 electrical devices positioned therebetween; and

8 at least two alignment members formed on the second substrate and each
9 alignment member adapted to interface with the connector to align the connector in relation
10 to the second substrate.

1 26. The structure of claim 25 wherein at least one of the at least two alignment
2 members is a prefabricated alignment member bonded to the second substrate.

1 27. The structure of claim 25 wherein at least one of the at least two alignment
2 members is shaped from the second substrate.

1 28. The structure of claim 26 wherein at least one of the at least two alignment
2 members is a microsphere.

1 29. The structure of claim 25 further comprising at least two optical components
2 on the second substrate.

1 30. The structure of claim 26 wherein at least one of the at least two alignment
2 members is formed on an overlay and affixed to the second substrate.

1 31. The structure of claim 25 wherein at least a portion of the second substrate is
2 transparent and the second substrate further comprises at least two optical devices formed in
3 the second substrate.

1 32. An electro-optical interconnect device for coupling to a parallel fiber-optic
2 cable:

3 an electro-optical transducer;

4 a base including an integrated circuit electrically connected to said electro-
5 optical transducer; and

6 a lid including an array of optical elements optically coupled to said electro-
7 optical transducer, said lid assembly including at least one pin for engaging said cable, said
8 lid assembly and said base assembly collectively enclosing said electro-optical transducer.33

1 33. A device as recited in claim 32 wherein said electro-optical transducer is
2 disposed between said integrated circuit and said array of optical elements.